

General

Guideline Title

Toxoplasmosis in pregnancy: prevention, screening, and treatment.

Bibliographic Source(s)

Paquet C, Yudin MH, Infectious Disease Committee. Toxoplasmosis in pregnancy: prevention, screening, and treatment. J Obstet Gynaecol Can. 2013;35(1 eSuppl A):S1-7. [32 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The quality of evidence (I-III) and classification of recommendations (A-E, L) are defined at the end of the "Major Recommendations."

Diagnosis

1. Routine universal screening should not be performed for pregnant women at low risk. Serologic screening should be offered only to pregnant women considered to be at risk for primary *Toxoplasma gondii* (*T. gondii*) infection. (II-3E)
2. Suspected recent infection in a pregnant woman should be confirmed before intervention by having samples tested at a toxoplasmosis reference laboratory, using tests that are as accurate as possible and correctly interpreted. (II-2B)
3. If acute infection is suspected, repeat testing should be performed within 2 to 3 weeks, and consideration given to starting therapy with spiramycin immediately, without waiting for the repeat test results. (II-2B)
4. Amniocentesis should be offered to identify *T. gondii* in the amniotic fluid by polymerase chain reaction (a) if maternal primary infection is diagnosed, (b) if serologic testing cannot confirm or exclude acute infection, or (c) in the presence of abnormal ultrasound findings (intracranial calcification, microcephaly, hydrocephalus, ascites, hepatosplenomegaly, or severe intrauterine growth restriction). (II-2B)
5. Amniocentesis should not be offered for the identification of *T. gondii* infection at less than 18 weeks' gestation and should be offered no less than 4 weeks after suspected acute maternal infection to lower the occurrence of false-negative results. (II-2D)

Toxoplasmosis in Pregnancy

6. *T. gondii* infection should be suspected and screening should be offered to pregnant women with ultrasound findings consistent with possible TORCH (toxoplasmosis, rubella, cytomegalovirus, herpes, and other) infection, including but not limited to intracranial calcification, microcephaly, hydrocephalus, ascites, hepatosplenomegaly, or severe intrauterine growth restriction. (II-2B)

Treatment

7. Each case involving a pregnant woman suspected of having an acute *T. gondii* infection acquired during gestation should be discussed with an expert in the management of toxoplasmosis. (III-B)
8. If maternal infection has been confirmed but the fetus is not yet known to be infected, spiramycin should be offered for fetal prophylaxis (to prevent spread of organisms across the placenta from mother to fetus). (I-B)

Prevention

9. A combination of pyrimethamine, sulfadiazine, and folinic acid should be offered as treatment for women in whom fetal infection has been confirmed or is highly suspected (usually by a positive amniotic fluid polymerase chain reaction). (I-B)
10. Anti-toxoplasma treatment in immunocompetent pregnant women with previous infection with *T. gondii* should not be necessary. (I-E)
11. Women who are immunosuppressed or human immunodeficiency virus (HIV)-positive should be offered screening because of the risk of reactivation and toxoplasmosis encephalitis. (I-A)
12. A non-pregnant woman who has been diagnosed with an acute *T. gondii* infection should be counselled to wait 6 months before attempting to become pregnant. Each case should be considered separately in consultation with an expert. (III-B)
13. Information on prevention of *T. gondii* infection in pregnancy should be made available to all women who are pregnant or planning a pregnancy. (III-C)

Definitions:

Quality of Evidence Assessment*

I: Evidence obtained from at least one properly randomized controlled trial

II-1: Evidence from well-designed controlled trials without randomization

II-2: Evidence from well-designed cohort (prospective or retrospective) or case-control studies, preferably from more than one centre or research group

II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be included in this category

III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

*Adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

Classification of Recommendations†

A. There is good evidence to recommend the clinical preventive action

B. There is fair evidence to recommend the clinical preventive action

C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making

D. There is fair evidence to recommend against the clinical preventive action

E. There is good evidence to recommend against the clinical preventive action

L. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making

†Adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Guideline Category

Diagnosis

Management

Prevention

Screening

Treatment

Clinical Specialty

Infectious Diseases

Obstetrics and Gynecology

Intended Users

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To review the prevention, diagnosis, and management of toxoplasmosis in pregnancy

Target Population

- Pregnant women
- Non-pregnant women diagnosed with acute *Toxoplasma gondii* infection planning a pregnancy

Interventions and Practices Considered

Screening/Diagnosis

1. Routine universal screening (considered but not recommended)
2. Serologic screening for pregnant women at risk for primary *Toxoplasma gondii* (*T. gondii*) infection
3. Confirm infection before intervention by having samples tested at a toxoplasmosis reference laboratory
4. Amniocentesis

Treatment/Management

1. Consultation with expert in management of toxoplasmosis
2. Spiramycin for fetal prophylaxis
3. Combination of pyrimethamine, sulfadiazine, and folinic acid

Prevention

1. Counseling non-pregnant woman diagnosed with acute *T. gondii* infection to wait 6 months before attempting to become pregnant

2. Patient education

Major Outcomes Considered

- Effect of screening on diagnosis of congenital toxoplasmosis
- Efficacy of prophylaxis and treatment

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

The Cochrane Library and Medline were searched for articles published in English from 1990 to the present related to toxoplasmosis and pregnancy. Additional articles were identified through references of these articles.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality of Evidence Assessment*

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III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

*Adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

The quality of evidence was rated and recommendations made according to guidelines developed by the Canadian Task Force on Preventative Health Care.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Classification of Recommendations†

A. There is good evidence to recommend the clinical preventive action

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Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

This clinical practice guideline has been prepared by the Infectious Disease Committee, reviewed by the Family Practice Advisory Committee and the Maternal Fetal Medicine Committee, and approved by the Executive and Council of the Society of Obstetricians and Gynaecologists of Canada.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Guideline implementation should assist the practitioner in developing an approach to screening for and treatment of toxoplasmosis in pregnancy.
- Patients will benefit from appropriate management of this condition.

Potential Harms

The low prevalence of the disease in the Canadian population and limitations in diagnosis and therapy limit the effectiveness of screening strategies.

Qualifying Statements

Qualifying Statements

This document reflects emerging clinical and scientific advances on the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Local institutions can dictate amendments to these opinions. They should be well documented if modified at the local level. None of these contents may be reproduced in any form without prior written permission of the Society of Obstetricians and Gynaecologists of Canada (SOGC).

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Foreign Language Translations

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Staying Healthy

IOM Domain

Effectiveness

Identifying Information and Availability

Bibliographic Source(s)

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2013 Jan

Guideline Developer(s)

Society of Obstetricians and Gynaecologists of Canada - Medical Specialty Society

Source(s) of Funding

Society of Obstetricians and Gynaecologists of Canada

Guideline Committee

The Infectious Diseases Committee

Composition of Group That Authored the Guideline

Principal Authors: Caroline Paquet, RM, Trois-Rivières QC and Mark H. Yudin, MD, Toronto ON

Infectious Diseases Committee: Mark H. Yudin, MD (*Chair*), Toronto ON; Victoria M. Allen, MD, Halifax NS; Céline Bouchard, MD, Quebec QC; Marc Boucher, MD, Montreal QC; Sheila Caddy, MD, Edmonton AB; Eliana Castillo, MD, Calgary AB; Deborah M. Money, MD, Vancouver BC; Kellie E. Murphy, MD, Toronto ON; Gina Ogilvie, MD, Vancouver BC; Caroline Paquet, RM, Trois-Rivières QC; Julie van Schalkwyk, MD, Vancouver BC; Vyta Senikas, MD, Ottawa ON

Financial Disclosures/Conflicts of Interest

Disclosure statements have been received from all members of the committee.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the [Society of Obstetricians and Gynaecologists of Canada \(SOGC\) Web site](#) . Also available in French from the [SOGC Web site](#) .

Print copies: Available from the Society of Obstetricians and Gynaecologists of Canada, La société des obstétriciens et gynécologues du Canada (SOGC) 780 promenade Echo Drive Ottawa, ON K1S 5R7 (Canada); Phone: 1-800-561-2416.

Availability of Companion Documents

None available

Patient Resources

None available

NGC Status

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